

**DETECTING A SIGNIFICANT EVENT IN
EXPERIMENTAL DATA AND USE OF SUCH FOR
DETECTION OF ENGAGEMENT DURING A
MECHANICAL TEST**

5 ABSTRACT OF THE DISCLOSURE

 A method of determining onset of a significant
event, such as point of engagement, in experimental
data such as data measured during indenter or
tensile/compression tests. The measured data is
10 processed by differentiation and/or integration to
generate a plurality of processed series. The method
includes setting an upper bound and a lower bound based
on thresholds selected as multiples of a standard
deviation. The significant event is determined from one
15 or both of the upper and lower bounds. The method can
include calculating an uncertainty for the significant
event determination.